Claims

1. Use of spongosine in the manufacture of a medicament for the prevention, treatment, or amelioration of pain.

2. Use according to claim 1, wherein the pain is hyperalgesia.

3. Use according to claim 2, wherein the hyperalgesia is neuropathic pain.

4. Use according to any preceding claim, wherein the pain is caused by or associated with a disease that causes damage to sensory neurones.

5. Use according to any preceding claim for the prevention, treatment, or amelioration of bowel pain, pancreatic pain, pelvic/perineal pain, back pain, lower back pain, chest pain, cardiac pain, pelvic pain/PID, joint pain (for example, associated with tendonitis, bursitis, acute arthritis), neck pain, obstetric pain (labour or Caesarean-Section), cancer pain, HIV pain, phantom limb pain, post-operative pain, chronic neuropathic pain, failed back surgery pain, post physical trauma pain (including pain caused by a gunshot wound, a road traffic accident, or a burn), scar tissue pain, acute herpes Zoster pain, acute pancreatitis breakthrough pain (cancer), post-herpes neuralgia, or trigeminal neuralgia, or for the prevention, treatment, or amelioration of neuropathic or other pain caused by, or associated with diabetic neuropathy, polyneuropathy, fibromyalgia, myofascial pain syndrome, osteoarthritis, rheumatoid arthritis, sciatica or lumbar radiculopathy, spinal stenosis, temporo-mandibular joint disorder, renal colic, dysmenorrhoea/endometriosis.

6. Use according to claim 2, wherein the hyperalgesia is inflammatory pain.

7. Use according to any of claims 1, 2, or 6 wherein the pain is caused by or associated with an inflammatory or immune disease.

8. Use according to claim 1, 2, 6, or 7 for the prevention, treatment, or amelioration of bowel pain, back pain, cancer pain, fibromyalgia, post-operative pain,

or for the prevention, treatment, or amelioration of inflammatory or other pain caused by, or associated with arthritic conditions such as osteoarthritis, rheumatoid arthritis, rheumatoid spondylitis, gouty arthritis, or asthma, chronic obstructive pulmonary disease, fibrosis, multiple sclerosis, sepsis, septic shock, endotoxic shock, gram negative shock, toxic shock, hemorrhagic shock, adult respiratory distress syndrome, cerebral malaria, organ transplant rejection, pain secondary to cancer, HIV, chronic pulmonary inflammatory disease, silicosis, pulmonary sarcosis, bone resorption diseases, reperfusion injury, graft v. host rejection, multiple sclerosis, myasthenia gravis, allograft rejections, fever and myalgia due to infection, AIDS related complex (ARC), keloid formation, scar tissue formation, Crohn's disease, ulcerative colitis and pyresis, irritable bowel syndrome, osteoporosis, cerebral malaria, bacterial meningitis, or adverse effects from amphotericin B treatment, interleukin-2 treatment, OKT3 treatment, or GM-CSF treatment.

9. Use according to any preceding claim, wherein spongosine is used with another analgesic agent.

10. Use according to claim 9, wherein the other analgesic agent is an opioid receptor agonist or partial agonist, a cyclooxygenase inhibitor, a sodium or calcium channel modulator, a Selective Serotonin Reuptake Inhibitor (SSRI), or an agent that treats neuropathic pain.

11. A method of preventing, treating, or ameliorating pain which comprises administering spongosine to a subject in need of such prevention, treatment, or amelioration.

12. A method according to claim 11, wherein the pain is hyperalgesia.

13. A method according to claim 12, wherein the hyperalgesia is neuropathic pain.

14. A method according to any of claims 11 to 13, wherein the pain is caused by or associated with a disease that causes damage to sensory neurones.

15. A method according to any of claims 11 to 14 for the prevention, treatment, or amelioration of bowel pain, pancreatic pain, pelvic/perineal pain, back pain, lower back pain, chest pain, cardiac pain, pelvic pain/PID, joint pain (for example, associated with tendonitis, bursitis, acute arthritis), neck pain, obstetric pain (labour or Caesarean-Section), cancer pain, HIV pain, phantom limb pain, post-operative pain, chronic neuropathic pain, failed back surgery pain, post physical trauma pain (including pain caused by a gunshot wound, a road traffic accident, or a burn), scar tissue pain, acute herpes Zoster pain, acute pancreatitis breakthrough pain (cancer), post-herpes neuralgia, or trigeminal neuralgia, or for the prevention, treatment, or amelioration of neuropathic or other pain caused by, or associated with diabetic neuropathy, polyneuropathy, fibromyalgia, myofascial pain syndrome, osteoarthritis, rheumatoid arthritis, sciatica or lumbar radiculopathy, spinal stenosis, temporo-mandibular joint disorder, renal colic, dysmenorrhoea/endometriosis.

16. A method according to claim 12, wherein the hyperalgesia is inflammatory pain.

17. A method according to claim 11, 12, or 16, wherein the pain is caused by or associated with an inflammatory or immune disease.

18. A method according to claim 11, 12, 16, or 17 for the prevention, treatment, or amelioration of bowel pain, back pain, cancer pain, fibromyalgia, post-operative pain, or for the prevention, treatment, or amelioration of inflammatory or other pain caused by, or associated with arthritic conditions such as osteoarthritis, rheumatoid arthritis, rheumatoid spondylitis, gouty arthritis, or asthma, chronic obstructive pulmonary disease, fibrosis, multiple sclerosis, sepsis, septic shock, endotoxic shock, gram negative shock, toxic shock, hemorrhagic shock, adult respiratory distress syndrome, cerebral malaria, organ transplant rejection, pain secondary to cancer, HIV, chronic pulmonary inflammatory disease, silicosis, pulmonary sarcosis, bone resorption diseases, reperfusion injury, graft v. host rejection, multiple sclerosis, myasthenia gravis, allograft rejections, fever and myalgia due to infection, AIDS related complex (ARC), keloid formation, scar tissue formation, Crohn's disease, ulcerative colitis and pyresis, irritable bowel syndrome, osteoporosis, cerebral malaria, bacterial meningitis,

or adverse effects from amphotericin B treatment, interleukin-2 treatment, OKT3 treatment, or GM-CSF treatment.

19. A method according to any of claims 11 to 18, wherein spongosine is administered at a dose that gives rise to plasma concentrations one fifth to one thousandth of the minimum plasma concentration of spongosine that gives rise to bradycardia, hypotension or tachycardia side effects in animals of the same species as the subject to which the dose is to be administered.

20. A method according to claim 19, wherein the dose is one fifth to one hundredth of the minimum does that gives rise to the side effects.

21. A method according to any of claims 11 to 18, wherein spongosine is administered at a dose that is one fifth to one fiftieth of the minimum dose of spongosine that gives rise to bradycardia, hypotension or tachycardia side effects in animals of the same species as the subject to which the dose is to be administered.

22. A method according to claim 21, wherein the dose is one fifth to one tenth of the minimum dose that gives rise to the side effects.

23. A method according to any of claims 11 to 18, wherein spongosine is administered at a dose of less than 6mg/kg.

24. A method according to any of claims 11 to 18, or 23, wherein spongosine is administered at a dose of at least 0.01mg/kg, preferably at least 0.05mg/kg.

25. A method according to any of claims 11 to 18, or 23, wherein spongosine is administered at a dose of at least 0.1mg/kg.

26. A method according to claim 25, wherein spongosine is administered at a dose of 0.1 to 1mg/kg, or 0.2 to 1mg/kg.

27. A method according to any of claims 11 to 18, wherein the subject is administered with spongosine and another analgesic agent.

28. A method according to claim 27, wherein the other analgesic agent is an opioid receptor agonist or partial agonist, a cyclooxygenase inhibitor, a sodium or calcium channel modulator, a Selective Serotonin Reuptake Inhibitor (SSRI), or an agent that treats neuropathic pain.

29. A method according to any of claims 11 to 28, wherein spongosine is administered orally, parenterally, sublingually, transdermally, intrathecally, or transmucosally.

30. A method according to any of claims 11 to 29, wherein spongosine is administered at a frequency of 2 or 3 times per day.

31. A method according to any of claims 11 to 30, wherein the subject is a human subject.